ANOTHER LOOK AT LEIBERGIA COULT. & ROSE (UMBELLIFERAE)

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Among the extensive gatherings made in northwest America in the 1840's by the observant, Dresden-born botanical explorer Charles A. Geyer was a small umbelliferous plant that has remained obscure to this day. William J. Hooker (1847) described it under the collector's manuscript name *Peucedanum (Ferula) tenuissimum,* and provided a brief description of the vegetative parts and flowers since no fruit was available. The type collection, *Geyer 302,* was made "in wet swampy small prairies surrounded by lofty mountains, Coeur d'Aleine country", growing with *Thlaspi* (Cruciferae). In their monograph of 1900, Coulter and Rose remarked that the plant was ". . . still doubtful. It is probably a good species, but more than likely has been described under some other name" (p. 240). Mathias (1937) placed it in synonymy under *Lomatium ambiguum* (Nutt.) Coult. & Rose but without comment and without seeing authentic material.

Coulter and Rose relied on collections of a small, bulbous umbelliferous plant from the Coeur d'Alene Mountains and the Spokane area of eastern Washington as the basis for erecting the genus *Leibergia* in 1896. They compared this plant both to certain tuberous species of *Peucedanum (=Lomatium)* and to *Orogenia,* but stressed its technical affinity with *Oreomyrrhis* and *Chaerophyllum,* presumably because of the elongated, wingless, and laterally compressed fruit. In his lengthy critique of the Coulter and Rose (1900) treatment of *Lomatium,* Marcus E. Jones (1908) substituted *Cogswellia* as a generic name and transferred all the species from one genus to the other in sectional groups. The fifth, section *Cous,* was characterized as possessing tuberous roots, narrow leaf divisions, and narrow fruit wings. Among the yellow-flowered species – actually the petals are white, the anthers yellow – was also included *Cogswellia (Leibergia) orogenioides.* Mathias (1937) followed Jones' interpretation of this species but returned it to the restored *Lomatium.* In the general geographical area only that genus was known to contain bulbous forms, although the absence of lateral (marginal) fruit ribs was atypical.

In 1943 we described *Tauschia hooveri* from the Yakima region, a species markedly similar to *Leibergia orogenioides* and almost certainly congeneric with it. (Compare the illustrations: Madroño 7: 66, *fig. 1.* 1943 and Contr. U. S. Nat. Herb. 3: *pl. 27.* 1896.) However, it did not occur to us at the time to make comparison with any species of *Lomati-*

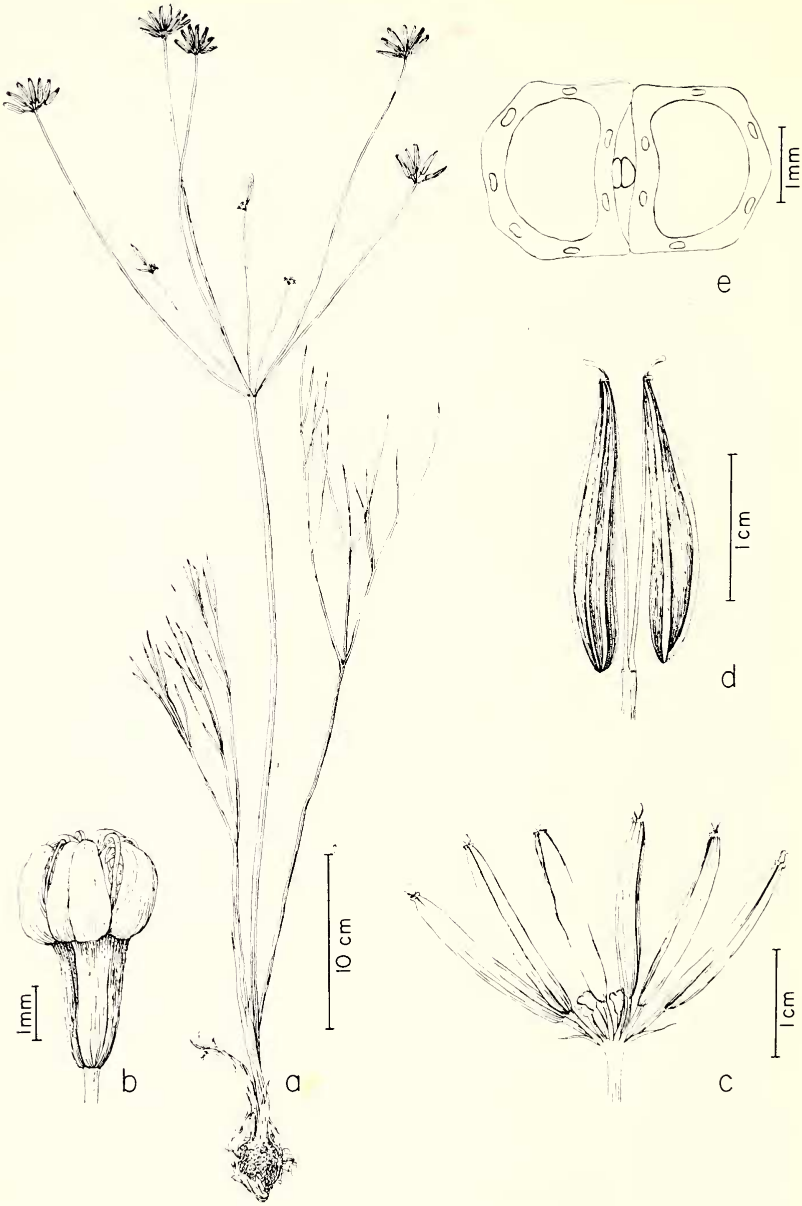

FIG. 1. *Tauschia tenuissima:* a, habit; b, fertile flower; c, fruiting umbellet; d, fruit; e, fruit transection. (a, c–d from *Meyer 901;* b, from *Suksdorf 8645;* e, from *Leiberg 1027)*

um. Twenty years later, Constance examined the Geyer collections in the British Museum, at Kew, and in Vienna, and discovered that *Peucedanum tenuissimum* Hook. is unquestionably the same thing as *Leibergia orogenioides* Coult. & Rose. This taxon, moreover, is very much closer to *Tauschia hooveri* than it is to any species of *Lomatium,* and should no longer be separated from it generically.

There are three possible ways of bringing these related taxa together. The first is to refer them both to *Lomatium,* where they would join a number of species of very similar appearance occurring in the same general region. However, the low bulbous habit, which occurs not only in *Lomatium* and *Orogenia,* but also in such diverse genera as *Bunium, Scaligeria, Diposis (Hydrocotyloideae),* and *Sanicula (Saniculoideae),* is a poor guide to relationship. So long as considerations of fruit morpology continue to dominate classification of Umbelliferae, it is inconsistent to admit the laterally lightly compressed fruits of these two species to the same genus with the dorsally flattened and usually marginally winged ones of *Lomatium.* The second alternative, to revive the genus *Leibergia* and to assign the two related taxa to it, is perhaps the most attractive. The two species are very similar in appearance and not very far separated geographically, and there are no other species of *Tauschia* as close to either one of them as they are to each other. When one searches for solid distinctions to set off *Leibergia* generically from *Tauschia,* however, it seems clear that a third alternative is unavoidable, that is to transfer *Leibergia orogenoiodes* to the genus *Tauschia* as:

Tauschia tenuissima (Geyer ex Hook.) Math. & Const., comb. nov., (fig. 1).

Peucedanum tenuissimum Geyer; Hooker, London Journ. Bot. 6:235. 1847.

Leibergia orogenioides Coult. & Rose, Contr. U. S. Nat. Herb. 3:575. 1896.; *Cogswellia orogenioides* M. E. Jones, Contr. West. Bot. 12:33. 1908; *Lomatium orogenioides* Mathias, Ann. Mo. Bot. Gard. 25:242. 1937.

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